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AGRICULTURAL MARKETING

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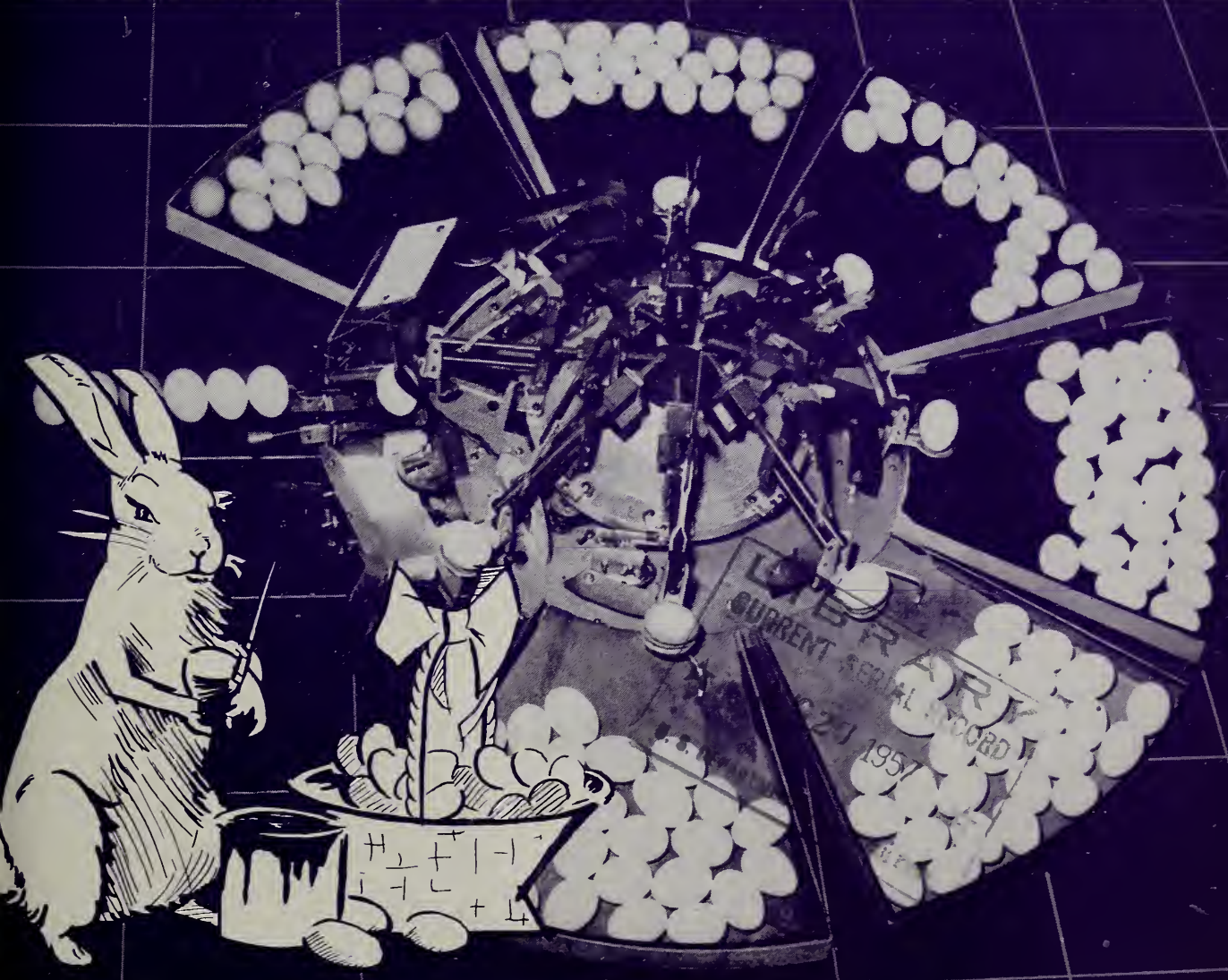
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Cover

The machine shown on the cover will automatically grade eggs for color. Developed by agricultural engineers and poultry specialists of the Agricultural Marketing Service, the automatic grader can accurately separate eggs over the full range of normal shell colors ranging from white to dark brown. It is another example of AMS research designed to assist industry in the orderly marketing of agricultural commodities. Regardless of our own preferences in shell color, Mr. Rabbit will be busy this Easter holiday season painting egg shells in multi-colors for the young at heart. Eggs will be in plentiful supply. AMS' Food Distribution Division is featuring eggs on its Plentiful Foods List for April.

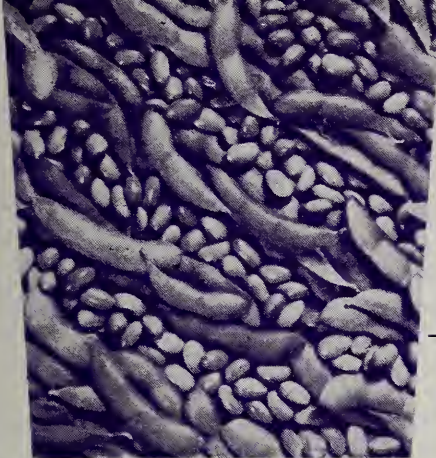
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Editor (acting) Milton Hoffman



INSTITUTIONAL MARKET FOR SOYBEAN PROTEINS

By Wendell E. Clement and William S. Hoofnagle

PUBLIC and private institutions—mental, penal, and homes for children and the aged—offer a potential annual market for 77 million pounds of soy proteins. This is almost double that used in food in 1954.

According to AMS market development specialists who recently studied this unexplored market, residential-type institutions could provide a much-needed outlet for growing supplies of soybeans.

The 1956 crop was 86 million bushels larger than 1955. Prospects for this marketing year are favorable for a record export and domestic demand. But year-end stocks will still be substantially larger than a year ago.

The high-protein value and low cost of soybeans make them a natural for institutional feeding. Use of soy proteins would give administrators a chance to improve both budget and dietary standards.

Supplementing only 3 pounds of soy flour, which is rich in protein, with every 100 pounds of meat and cereal products can mean a saving of about 3.4 cents per person per day. In an institution of 5,000 persons, this could lower the cost of protein foods by \$62,000 annually.

To measure the potential of the institutional market, AMS researchers secured the cooperation of 16 public and private institutions, which recorded both the nutrient content and the cost of all foods eaten during the survey period.

Based on the dietary standards of the National Research Council, results showed that more than half of these institutions failed to reach the recommended allowances for one or more of the nutrients studied.

In the case of protein, however, only three of the institutions were lower than the recommended allowances.

Animal foods contributed from 56 to 71 percent of the total protein provided in the diets.

To provide 4 ounces of protein, the 16 institutions spent from 53 cents to \$1.09 for meat, poultry, and fish products; 14 to 60 cents for cereal products. The same amount of protein equivalent could have been provided in the form of soy flour for about 5 to 10 cents.

Obviously, soy flour or grits could not replace all or even a large part of the meat and cereal, but some supplementation could reduce the total amount spent for these foods.

Tests in two of the cooperating institutions checked the possibilities of using the soy products. Soy flour was used at a maximum rate of 3 pounds per 100 pounds of other food in rolls, biscuits, corn bread, cakes, and other special items such as soup.

As a result of this soybean supplement, the diets of these 2 institutions were improved 3 percent in terms of protein, 4 percent in thiamine, and 1 percent in niacin. No objectionable differences were noticed in flavor or texture of the foods.

At the present time, the institutional market for soy proteins is a very small part of the total market. A few institutions, particularly in New York State, are currently using small amounts of these products to provide a protein supplement.

Before the 77-million-pound potential is reached, however, there must be further research in developing methods of using the oilseed products in foods. Researchers also recommend a strong merchandising program coupled with adequate development of distribution channels that are prepared to serve the institutional market.



WET SOAKED or partially cooked small white beans and pea beans—usually sorted by hand in canning factories—can now be sorted automatically by “eye.”

It's an electronic eye that does the job. And it's part of a device adapted by AMS technologists to sort out damaged and discolored beans before they go into cans.

Viewing each bean individually at the rate of several score a second, this eye is faster than the hand—and more accurate, too.

For the packer of high-quality produce this will mean economy as well. Direct savings, however, depend to a large extent upon the amount of labor costs which the individual canner spends in putting up his pack.

Actually, the automatic sorting device is essentially the same piece of equipment that has been used for the last 25 years to sort dry beans before they are packaged in transparent bags for retail sale. With a

few modifications and a waterproofing of certain vulnerable parts, it can now be used to handle the wet soaked or partially cooked beans.

How to mechanically sort these wet beans has long been a problem in the canning industry. The sticky condition of the soaked and blanched beans had defied automation. The beans didn't feed well into the machine and were hard to pick up for viewing.

Yet, it was necessary to sort the beans *after* the washing, soaking, and other cleaning operations, for canners found that the appearance of the beans was changed. If sorting was done before soaking and blanching, often good beans were discarded as bad. At the same time, it wasn't always possible to pick out all the damaged or discolored beans. Defects frequently showed up later.

Aware of the need for automatic sorting for the sake of both efficiency and economy, AMS researchers went to work. The industry was definitely interested in the possibility of automatizing the sorting operation. A sorting-equipment manufacturer was willing to cooperate in designing an apparatus to do the job.

The first problem, of course, was getting the beans to feed easily into the machine. Engineers solved this by altering the feeding and pick-up assembly of the equipment currently used for sorting dry beans. With these changes, the wet beans moved easily into the machine, were picked up for inspection by the eye, and either retained or rejected.

By setting the machine at a chosen color standard, all beans of this particular color are then passed as satisfactory and retained in the pack. But if a bean doesn't meet this color specification—that is, if it is too dark—it is rejected.

In performing this sorting operation, the machine worked more efficiently than hand-pickers. It did a more consistent job and worked well with material containing a large percentage of defects.

In test runs, AMS researchers first put a batch of hand-sorted pea beans through the electronic device. Although no known rejects were included in the sample, the machine separated 2 beans from the pack. Both were found to be true rejects missed by the hand-sorters.

Next, both light discolored and dark discolored beans were added to the soaked and blanched beans being tested. Of the 203 slightly discolored beans added, the machine rejected 164. Eight of these were “acceptable rejects.” These beans were good, but the machine rejected them because the control device wasn't adjusted

finely enough. The machine found 156 true rejects and left in 47 beans with slight discolorations.

In sorting out the dark discolored beans, the machine performed better. This was probably because often included in the slightly discolored group were beans with small spots of a rather minor nature. These the machine had failed to pick out.

But when 266 dark discolored beans were added to the test batch, the machine removed 256 of them. Only 9 defective dark discolored beans were left in the pack. However, the machine also removed 20 acceptable beans.

Repeated tests showed that if the electronic equipment were adjusted more finely, almost all the dark discolored beans could be effectively removed. The slightly discolored beans remaining would have such minor discoloration that they could pass in the canned product without comment.

Although stones are usually removed at the country elevator by special type destoners and separators, the electronic sorter could also remove stones. When stones were purposely introduced into a batch of beans, the machine removed 9 out of 10.

The ability to control sorting is a significant advantage of the machine over the hand-sorter. The machine can be adjusted to a very fine degree of per-

ception, so that precise separation of color may be obtained for high-quality packing. Or, if the packer doesn't require a closely graded pack, it will also permit a wider range of color variations among the beans.

Obviously, a hand-sorter cannot adjust herself so easily. And variations exist among the individual pickers and their judgments of color.

Observation also shows that hand-sorters find it difficult to shift from one type of sorting to another. When a good lot of beans moves along the line, sorters tend to pick out many good beans simply because they are used to keeping their fingers busy. In such a situation, as much as 40 percent of the rejects have been found to be usable beans. Over a period of time, this represents a substantial loss to the canner.

By using the electronic sorter, canners would no longer suffer such losses. With proper adjustments, rejects can be controlled and the quality of the pack improved.

Moreover, use of an automatic sorting machine would now completely mechanize the canning operation. Already pre-cleaning, soaking, blanching, closing the cans, and cooking are done by large-scale equipment. All this leads to a better pack at a lower cost per can of beans.

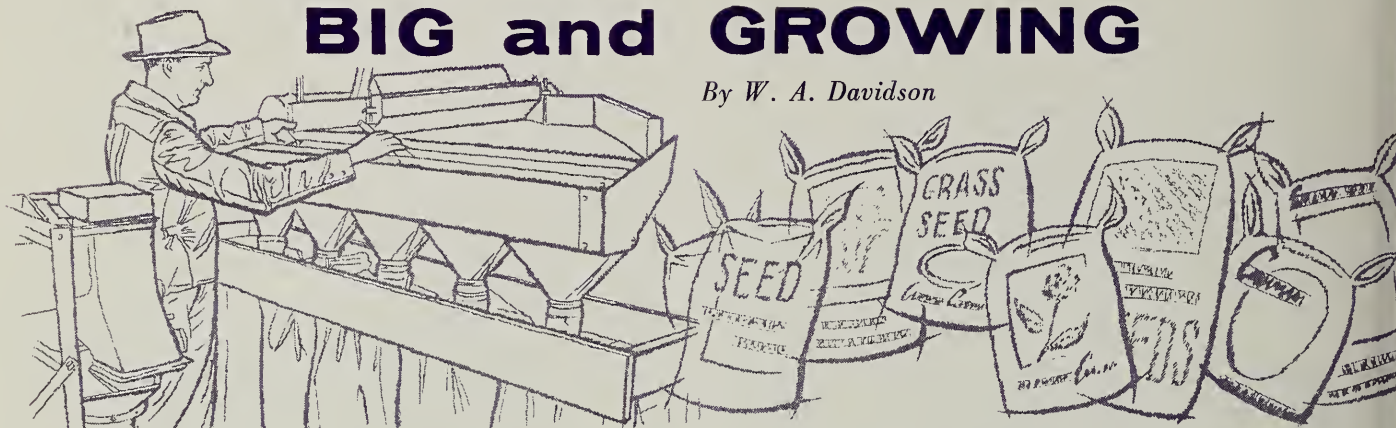


Hand-sorters remove bad beans and other undesirable material as they pass along conveyor belts. Note belts at right are at lower level than those at left. This results in the beans tumbling at end of first belt, many turning the other side up for second inspector.

The Seed Business . . .

BIG and GROWING

By W. A. Davidson



OPERATION of the Soil Bank is expected to result in a substantial increase in the quantity of seed marketed this spring. For the entire year, more than 1.5 billion pounds of seed for all purposes will be sold in interstate commerce.

Of course, most field crops, such as wheat, oats, and barley, will be sown with seed produced by the farmer and his neighbors. But the plantings of small seeds, such as alfalfa, timothy, and crimson clover, will be with seed cleaned and sold by seed dealers.

These seeds, moving in interstate commerce, must meet the requirements of the Federal Seed Act, which is administered by the Grain Division of Agricultural Marketing Service. On the books since 1939, this Act is designed to assure the farmer that the seeds he buys are exactly as represented on the label.

In fact, the label is the prime requirement for seed shipped under the Act. When seed is handled in bulk, the label must be on the invoice. When it is packaged, the label can be found on the bag or other container, or on a tag fastened securely to it.

The Federal Seed Act specifies that the label must contain the name of the kind of seed—whether it is wheat, sweetclover, or some other. If the variety or type is given, the designation must be accurate.

Currently, the Department is working with the producers and distributors of new grain sorghum hybrids to acquaint farmers with these new varieties. Growers then will be able to select the variety they desire on the basis of the variety name.

But more than name and variety or type appears on the label. All seed of alfalfa, red clover, white clover or field corn (except hybrid corn) must show its place of origin if that is known, or indicate that the origin is unknown.

The percentage of weed seeds must be shown, also the kind and amount of noxious weed seeds. Whether

a weed is noxious is determined by the law of the State into which the seed is shipped. The percentage of other crop seeds must be listed; also the inert matter, such as dirt and stones.

The label must also show the results of a recent germination test. When in interstate commerce, this test must not be more than 6 months old. But when seed is in retail stores, most State seed laws allow tests to be as much as 9 months old.

As a final item, the percentage of hard seeds, if any are present, must also appear on the label. Such crops as alfalfa, red clover, and white clover usually have some hard seed.

Recently some important changes in the Federal Seed Act and the regulations established under it have gone into effect. These are included in a recent reissue of Service and Regulatory Announcement No. 156, "Rules and Regulations Under the Federal Seed Act." Copies may be obtained from the Seed Branch of Agricultural Marketing Service, USDA.

The changes add a number of crops that have become important in recent years—sand lovegrass, intermediate wheatgrass, and Russian wild-rye. They exempt freshly harvested Kentucky bluegrass during the months of July, August, and September from any statement of germination. They bring approved methods of testing up to date in accordance with the rules adopted by the Association of Official Seed Analysts.

The Seed Act also was amended so that civil action can be taken against those who violate the Act. This is in addition to provisions which allow criminal prosecution of violators.

The seed trade that operates under the Act accumulates planting stock from many States and distributes it to farmers in every State. But before this distribution process come many other important functions of the trade.

First, the seeds must be cleaned. Dirt, chaff, and weed seeds must be removed. Complicated and costly machinery is used in the cleaning operation. Almost every seedsman has a battery of machines that separate the good seeds from the bad.

One of these is similar to the old-fashioned fanning mill which is used to blow out the chaff and light seeds. The sieves in this machine take out broken seeds and some of the seeds that are too large or too small.

Another machine is the spiral that takes advantage of the fact that some seeds roll faster than others and thus can be separated. A third, the disc machine, separates seeds of different shapes and sizes.

Still another machine helps separate dodder from alfalfa and the clovers. When rolled over a moving belt, the dodder is held back by its rough seed coat, while the smooth slick-coated seeds roll freely. A magnetic machine also removes dodder to which so-called "iron filings" have been added.

Other machines take advantage of other characteristics of different seeds. For example, seed containing buckhorn is moistened so that the buckhorn will secrete its mucilaginous coating. Sawdust is then mixed with the seed, and this sticks to the buckhorn. When a lot of seed is run over a screen, the sawdust and buckhorn are removed.

But all these machines work only as well as the men who operate them. It takes years of careful observation and training to learn how to adjust the speed of the fan in a fanning mill. The operator must know how to get the right pressure of air and the right opening of the slot above the fan to take the chaff out of a lot of seed and not blow away any of the good seed.

In these same years, the seed cleaner has learned to use just the right combination of sieves. Hundreds are at his disposal—some with round holes, others with long or short slots, and others of many different sizes and shapes.

He also has learned to shake these sieves either fast or slow. And if he's using the disc machine, he must further know which size and shape of cup to use in the disc.

But the responsibility of marketing cleaner seeds does not rest with the cleaner alone. Seed producers must also help by killing weeds in the field, for here's where the weed seeds come from.

Drill box surveys taken in the field where farmers were actually sowing their crops indicate that a large part of this seed would benefit by a thorough cleaning in a well-equipped plant. A 1953 Minnesota survey shows that practically 20 percent of the samples of

farmer-produced cereal seeds being sown had more weed seed than was allowed under the law. Yet only 0.3 percent of the seed purchased from dealers had too many weeds.

In 1954, another survey showed that 55 percent of the farmers' home-grown grass and legume seed violated the law, but a little over 7 percent of the seed handled by dealers did. Samples taken in 1955 showed that about 24 percent of home-grown cereals had too much weed seed as compared with a little over 6 percent of seed sold by dealers.

However, dealers analyze each lot of seed to make sure that it's really clean. Some of the larger seedsmen have their own laboratories and seed analysts who check on the thoroughness of the cleaning job. Others send samples to private laboratories or to the State seed laboratory.

Seed dealers also make tests to find out how well the seed will grow. Seedsmen with their own facilities make their own germination tests and occasionally check these tests with the State seed laboratories. Others use private laboratories.

To help these analysts in their testing problems, USDA conducts seed schools. Each session lasts two weeks. They are held at laboratories throughout the country, with about 100 analysts attending these "schools" every year.

This device reduces large quantities of seed into small samples.



Special Report

How we use our surplus food

By Martin D. Garber, Director, Food Distribution Division

Two and two-thirds billion pounds of surplus foods were moved into use during 1956 through USDA's Direct Distribution Program—the largest total in the 20-year history of the program.

The record total was reached by intensified application of the program's simple, sound principle: Foods of which we have too much are given to people who don't have enough of them.

The foods are the surpluses the Department owns—those acquired under price-support programs and purchased under surplus-removal programs.

The people to whom the foods are given are children taking part in school lunch programs, needy persons in institutions and in family units in this country, and the needy of foreign countries.

Through its operation, the program benefits both the people to whom the foods go and the producers from whom they came.

The good the program does for the eligible recipients is obvious—the wholesome, high-quality foods donated by the Department mean better lunches for the school children, an improved level of diets for the needy.

And, in the field of agricultural marketing, the program has developed supplementary outlets for sizable

quantities of foods that were considered “surplus.” In so doing, it has served to dispose of the surplus by using it. Through operation of the direct distribution program and other Department programs, surplus stocks of some food commodities have been completely exhausted and stocks of other commodities have been greatly reduced. The program thus directly aids the farmer by developing additional consuming outlets and helping to lift the burden of surpluses from his markets.

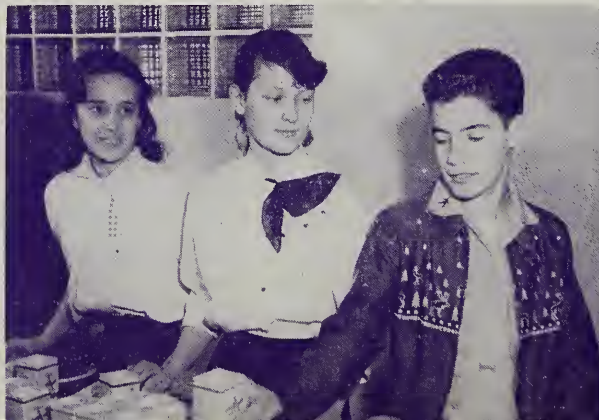
In the operation of the program, top priority is given to distribution of available foods to children who eat lunches at school.

USDA ships available foods as they are ordered to the central receiving points designated by the State distributing agencies, the unit of the State government designated by the Governor to assist in operation of the program. The carload shipments are then broken down by the State into lots of smaller size and trucked to participating schools. Lunch managers add the donated foods to the foods they have purchased locally for use in preparing school lunches. The addition of the donated foods makes the lunches better—and 12 million children share the benefits of those better lunches.

... for needy persons ...



... school children ...



... children ...



Surplus foods are also donated through the program to help feed needy persons in institutions. During the past year, 1,400,000 persons took part in the program in such institutions as nonprofit hospitals and homes for the aged. In addition, foods are given to persons in economic need, who would not otherwise get these foods or get enough of them.

The distribution again is a cooperative Federal-State operation. USDA ships the foods to a central receiving point in the State, where the carload shipments are broken down into smaller lots for distribution to the county and city agencies, and then to eligible recipients.

Before distribution is begun, a plan is carefully worked out to make sure that only those who are entitled to the foods will be certified to receive them.

The family distribution phase of the program is in operation now in cities and counties in 38 States and Alaska and Puerto Rico. The number of persons taking part varies, of course, from time to time. At the end of the year, 3,900,000 persons were eligible, and 3,200,000 persons actually received commodities in December 1956.

After provision has been made for the needs of users in this country, surplus foods owned by the Department are made available for donation to needy persons throughout the world. The distribution abroad is made by private United States welfare agencies—agencies which have long engaged in the work of helping the poor of the world. Twenty-two of these are currently taking part in the program in 82 countries around the world.

Distribution is made through the overseas organizations of the voluntary agencies. In every case, it is supervised by an American citizen representing the agency. And, in every case, the food is identified as a gift of the people of the United States.

Although a good deal of the operation of the direct distribution program is routine—things that are done day in and day out—much of the program's work towers above the routine.

When revolution flared in Hungary last fall, available stocks of food were rushed to the aid of the fleeing refugees. Surpluses already in Europe were made available to appropriate agencies in Austria to help feed the refugees that streamed over the border from Hungary. By year's end, more than 30 million pounds of food had been used for this purpose.

This February, thousands of persons were driven from their homes as floods swept through Tennessee, Kentucky, Virginia, and West Virginia. Flood waters surged over some storage warehouses and destroyed some commodities in the area.

USDA and State officials made foods available for emergency feeding from undamaged stocks and ordered additional supplies shipped in to aid in the emergency feeding and to replenish regular stocks which had been diverted from the uses for which they were originally intended. Foods will continue to be made available to the flood victims, as they are needed, until they have recovered from the disaster.

At the opposite extreme—where drought has struck the Great Plains—distribution of foods has been stepped up to aid its victims. Many farmers have fallen into economic need as they have continually lost crops and suffered livestock losses. Many workers, dependent on the farm economy, have suffered along with the farmers.

Donations of food have been increased in the drought-stricken areas in accordance with the increased need.

During the 1956 fiscal year, surplus foods aided the victims of 16 major natural disasters in the United States. Occurring in 14 different States, these included 7 tornadoes, 8 floods, and 1 hurricane. Some 200,000 pounds of food were distributed to about 78,000 persons.

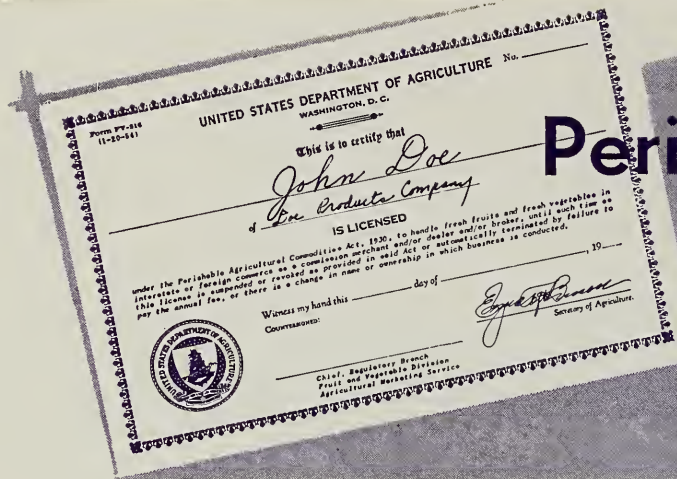
In this way, regular operation of the direct distribution program pays a bonus in times of emergency. Facilities maintained for the regular distribution of surplus foods are quickly swung into action to help provide emergency food supplies to disaster victims.

... as ...

... needy families abroad ...

... foreign relief ...





Perishable Agricultural

By John J. Dimond



"It will be unlawful for _____ to operate as a commission merchant, dealer, or broker, as defined in the Perishable Agricultural Commodities Act during the period his license is under suspension. Further, he may not be employed in a responsible position by another licensee until such time as the award is satisfied."

The above was issued by the Department of Agriculture after a licensee had failed to pay a shipper for produce purchased, and subsequently had ignored a formal reparation order issued against him in accordance with the provisions of the PACA.

This is one of the many actions taken by the Regulatory Branch of the Fruit and Vegetable Division, AMS, to ensure fair and reasonable trade practices in the marketing of fresh and frozen fruits and vegetables. It is used as a means of preventing unjustified rejection of produce by the purchaser, failure of a seller to make delivery, failure to render accurate accountings on sales of consigned produce, failure to pay promptly, making of false or misleading statements for fraudulent purposes, misbranding, and other similar actions defined as "unfair conduct" by the Perishable Agricultural Commodities Act.

Licensees under the PAC Act face stiff penalties if they do not conduct their business transactions in strict conformity with the law. Both the industry and the Government are interested in eliminating persistent violators from the produce business.

During the 1955-56 fiscal year—

- * The Secretary of Agriculture issued 285 formal orders calling for reparation payments amounting to about \$250,000.

- * Approximately 2,900 complaints were handled on an informal basis. These totaled almost \$1,000,000.

- * In investigating these complaints, the records of 850 licensees were audited.

* Forty-nine disciplinary actions were initiated by USDA as a result of repeated and flagrant violations of the Act.

Passed by Congress in 1930, the PAC Act has served as a stabilizing force in the produce industry. It is an outstanding example of cooperation between the Government and industry through the use of public authority exercised for the welfare of an industry.

The U. S. fruit and vegetable industry is a huge operation, involving many thousands of shippers, dealers, commission merchants, and brokers. Under the Act, all commission merchants, dealers, and brokers handling lots of one ton or more of fresh and frozen fruits and vegetables moving in interstate or foreign commerce are required to be licensed.

Also, a retailer becomes subject to license when he purchases in excess of 20 lots of one ton or more of fresh and frozen fruits and vegetables during any one year. Processors become subject to license when they purchase fruits or vegetables through interstate commerce. Growers who market only their own production are not required to have a license.

The annual license fee is \$25 per year. This defrays all costs of administering the Act except for legal services that are covered by appropriations.

Since 1930 some 164,000 licenses have been issued, and approximately 27,000 are currently in effect.

Each application for license under the Act is carefully checked to be sure that the applicant is not involved in an unsettled dispute or that he was not an owner, officer, or partner in any firm whose license has been revoked for violation of the PAC Act. He must also have no pending unpaid formal reparation awards issued against him within the past two years.

The Department may refuse to issue a license if the application is found to contain any false or misleading statements, or if the applicant has been found guilty

Commodities Act



of a felony of a nature which would necessitate concluding that he is unfit to hold a license, has been adjudicated as a bankrupt within the past three years, or has engaged in any practice of a character prohibited by the Act.

To facilitate the administration of the Perishable Agricultural Commodities Act, the law requires all licensees to maintain complete accounting records for at least two years. These must show fully and correctly all transactions in the business, as well as its true ownership.

Those who fail to keep such records frequently suffer heavy financial losses and considerable embarrassment. Most licensees see to it that more than the minimum requirements of the law are met in respect to maintaining records. They consider it a good form of insurance.

Commission merchants and those working on joint accounts with shippers are required to handle such produce promptly and efficiently, render accurate and detailed accountings, and pay the net returns promptly.

Any grower or shipper who has proper reason to be dissatisfied with an accounting on sales of consigned or joint account shipments can request the Department to visit the commission merchant and audit his records in order to verify the accounting. This service is performed at no cost to shipper or grower.

If it is found that an inaccurate accounting has been rendered, the commission merchant will be required to pay promptly any amount found due the shipper. Also, the Department may institute disciplinary action against the receiver if it deems the violation is sufficiently serious to warrant such action.

While a few unscrupulous operators have defied the Act, the great majority of persons and firms comply with its provisions. Against those who persist in violating the Act, disciplinary action is taken. This may in-

clude action in the Federal courts, where failure to comply with the law can result in contempt proceedings.

Formal action may bring about temporary suspension or even permanent revocation of an operator's PAC license. The latter, of course, would put him out of business indefinitely.

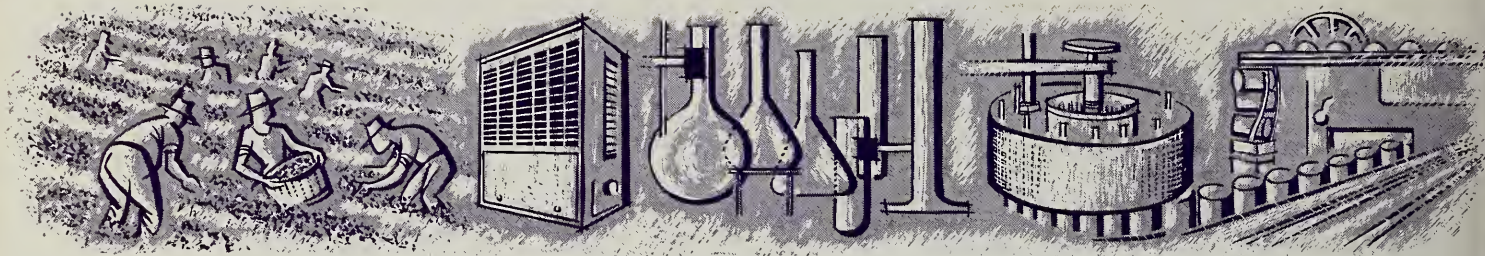
Usually, however, PACA action involves informal arbitration and settlement of disputes. Because of the highly perishable nature of the commodities involved, both parties are anxious for a fast informal decision. The majority of the licensees are willing to accept these informal opinions and settle their disputes on the basis of USDA recommendations.

The history of the Perishable Agricultural Commodities Act is unusual in that it is basically a regulatory act strongly supported by the industry involved. Over the years there has been relatively little criticism or differences of opinion regarding the Act. As defects in the law have become apparent, they have been rectified through amendments, and the nine such amendments have all served to strengthen the Act.

To render the best service possible, Department field offices are maintained at New York, Chicago, Fort Worth, and Los Angeles, as well as a seasonal office in Winter Haven, Fla. About 30 investigators handle the hundreds of complaints filed each year.

Complaints and requests for additional information should be addressed to the Regulatory Branch, Fruit and Vegetable Division, AMS, U. S. Department of Agriculture, Washington 25, D. C. To receive immediate attention in emergency cases, complaints may be made by phoning REpublic 7-4118, Washington, D. C.

Shipping fresh and frozen foods? Marketing Research Report No. 150 has some good tips on methods for checking temperatures of fresh and frozen foods in transit. Copies are available from AMS.



Marketing briefs on **THE CHANGING MARKET**

Vertical Integration and Broilers. The meaning of the term "vertical integration" is not completely familiar to a great number of people outside the poultry industry. But the industry recognizes it as a system that is becoming increasingly widespread in the business of producing and marketing broilers.

Here's how vertical integration works.

A single coordinated management performs all or part of the functions of producing hatching eggs, hatching chicks, rearing chicks, mixing and supplying feed, and slaughtering and distributing poultry.

Many of the leading firms in the broiler industry are integrated. Newly integrated organizations are created by agreements between existing non-integrated firms performing complementary functions.

For many years, the typical means of producing broilers has involved "financing." Farmers were financed by feed dealers or poultry processors who sought to assure themselves of either large-volume outlets for their feed or steady supplies of chickens for processing.

This shifted much of the financial risk from the farmer. He had the protection against out-of-pocket loss. And, in many cases, he had a guaranteed payment regardless of overall profit. As a result, farmers who were financed tended to be less responsive to low broiler prices than farmers who bore their own risks.

The single management system which has developed under vertical integration evolved from this method of financing broiler production. The system permits a firm to adjust the size of hatching-egg flocks to the demand for broiler chicks. Hatcheries can scale their plant capacity to keep trays in the incubator full. Feed mills have a constant outlet for fixed amounts of ration. Processing plants can maintain a steady supply of birds to dress—there are no empty shackles before the end of the day, there is no need for last-

minute hauls to supply the plants.

Along with these operations, integrated firms cultivate outlets which they can supply with regular deliveries of uniformly graded broilers. They use advertised trade names or brands to gain and hold markets for their high-volume operations. Hatcheries, breeders, and feed mills maintain regular schedules to meet a steady demand.

AMS marketing specialists point out that this system sustains broiler production at high levels even when prices are low. For example, production of broilers during 1956 was a record high despite disappointing returns to producers.

The specialists also say that significantly higher prices would bring an even greater supply. The industry has enough unused capacity to allow rapid expansion of chick supply. Also, smaller space allowances per chick could increase flock size in a given brooder house if economic conditions favored such an increase.

Shopping for Suits, Skirts, and Sweaters. Store displays and salesclerks still hold an important position in the marketing program, according to an item in MRR-153, "Women's Attitudes Toward Wool and Other Fibers."

The report says that many women don't know just what they'll buy when they start out shopping for suits, skirts, and sweaters. They make up their minds in the stores—from the displays and from talking with sales personnel.

In-store ideas were the leading factor among skirt and suit buyers interviewed by researchers. These same two factors were ranked second by women shopping for sweaters. Sweater shoppers were influenced more by discussions with friends, neighbors, and relatives.

Window displays also influenced shoppers.

Tank Trucks and Molasses for Livestock Feed. Trade sources now consider tank trucks the principal delivery method for molasses going to livestock feed uses. Tank trucks can offer bulk-unit delivery with great flexibility from railroads, from waterborne carriers, and from seaport terminals directly to users.

AMS marketing researchers found that tank trucks readily compete cost-wise with railroads at distances under 250 miles. Small volume bulk-unit services provided by tank trucks are particularly important to livestock feeders with less than 100 head of livestock and to mixed-feed mills producing less than 2,500 tons of feed a year.

The big change in molasses distribution methods has taken place during the past eight years. It is all part of the growth in the market for molasses in inland livestock areas and feed-mixing centers. Carriers shipped molasses by water up the Mississippi River. The use of tank trucks for delivery from up-river terminal to users was an important factor in this market expansion.

The change taking place can best be appraised by looking at some comparative figures. Waterborne and truck movement expanded many-fold. In 1949, there were only 2 molasses shipments reported for the Mississippi River system. They totaled 4,147 tons. They moved from New Orleans to Cincinnati. By 1954, the volume of traffic expanded to 339,494 tons of up-bound waterborne tonnage, and 2,845 tons of downbound tonnage, between the Mouth of Passes below New Orleans and all up-river points.

The volume of molasses moved by rail changed but little. The railroads have not shared proportionately in the longer hauls to more distant markets, or in the total increase in molasses movement.

AMS Marketing Research Report No. 149, "Transportation in Marketing Molasses for Feed," contains more information on this change in marketing molasses.

Commercially Prepared Feed. The output of commercially prepared feeds has more than doubled during the past 15 years. This reflects a trend toward specialization in poultry and livestock production and increased emphasis on nutritionally balanced rations.

Increases have been most pronounced for poultry feeds and protein supplements for hogs and beef cattle.

Commercially prepared feeds now make up more than a fifth of the total concentrates fed to livestock, compared with only about a tenth in 1939. They also have increased as a percentage of all feeds purchased.

However, total tonnage of feed consumed on the farm where grown has not changed greatly from prewar levels.

Prepackaging Fresh Fruits and Vegetables. About 20 percent of the fresh produce on the market today is packaged in consumer units before reaching the retail level. This amounts to about 11 billion pounds out of approximately 56 billion pounds of fresh fruits and vegetables marketed annually.

Currently, prepackaging is progressing at a rapid rate. Conventional practices are giving way to new and more efficient ones. Packagers are constantly searching for new methods and machinery to improve their operations.

Prepackaged produce seems to be the accepted future method of marketing. The only drawback is just how to package certain fresh produce in a suitable package at an acceptable price.

Information gained in a survey of 58 fresh produce packaging plants in the Northeast is presented in MRR-154, "Fresh Fruit and Vegetable Prepackaging," which covers the 1954-55 operating season.

More data on the prepackaging industry will be presented in a final report for the entire United States. Statistics for this report are being tabulated.

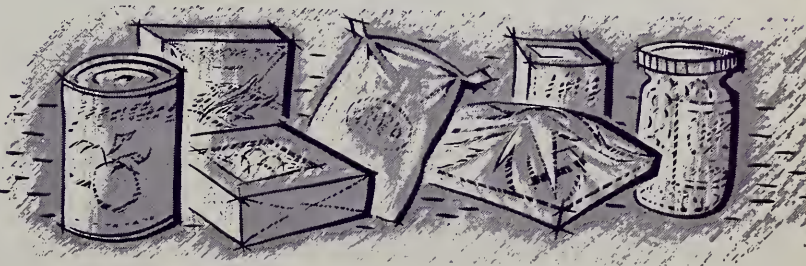
Food Consumption in the West. Westerners don't go along with the rest of the country when it comes to the amount of meat and poultry consumed per household. They eat more beef, but less pork and poultry.

In the spring of 1955, Western households consumed a pound more beef per week than the average household in the United States. At the same time, Westerners ate two-thirds of a pound less pork per household.

An average of 1.9 pounds of poultry was eaten by Western households, while the Nation as a whole ate 2.4 pounds.

These data, as well as information on all major food categories, appear in "Food Consumption of Households in the West," one of a series of ten publications coming out this year on U. S. food consumption and dietary patterns.

This is the first time a separate report for the West has been issued from a nationwide sample survey of food consumption patterns. Data for the region came from 639 households.





The volume of western plums marketed in the newly developed fiberboard containers has doubled in the past year. A packout of more than 60,000 cartons of plums was reported in 1956 compared with less than 30,000 in 1955.

To appraise the relative salability and trade acceptance of plums packed in the new cheaper fiberboard containers and plums packed in the more expensive 4-basket crates, AMS economists made 30 direct comparisons of New York auction sales prices.

Data were confined to sales of the same varieties and sizes of plums in both cartons and crates in the same week and in the same market. More than 90 percent of all the plums shipped to New York in the new containers—about 22,300 packages—were included.

In almost every instance, the conventional crate of plums brought a higher price per package than the new fiberboard box. But there were more pounds of plums in the crates than in the boxes. So, prices per package were converted to prices per pound.

This was done on the assumption that the net weight of plums of all sizes and varieties in the new containers averaged 23.5 pounds. In the crates, the net weight varies with the size. Here, the weight was assumed to be 31 pounds for the 3x4x4 size plums, 30 pounds for 4x4 plums, 29 pounds for 3x4x5, 28 pounds for 4x5, and 26 pounds for 5x5.

There were 11 comparisons of weekly average prices of Beauty plums, 11 of Santa Rosa's and 8 of Eldorado's. For the Beauty variety, per pound prices of plums in crates were higher in 8 instances; prices in the new containers higher in the remaining 3.

Almost the opposite was true for the Santa Rosa variety. Plums in the fiberboard cartons brought more per pound on 7 occasions. Those in crates were higher 4 times. In the 8 weekly price averages for Eldorado plums, plums in the new containers sold higher in each instance.

The 30 price comparisons included the matching of plums of 5 equivalent sizes as follows:

- (a) 5½-row in cartons and 3x4x4 in crates—plums in cartons sold higher once and plums in crates higher once.
- (b) 6-row and 4x4—cartons higher 5 times and crates higher 3 times.
- (c) 6½-row and 3x4x5—cartons higher 8 times and crates 1 time.
- (d) 7-row and 4x5—cartons higher 3 times and crates higher 5 times.
- (e) 7½-row and 5x5—cartons higher once and crates higher twice.

In the major auction markets other than New York, plums in the conventional crates brought a higher weekly average price when compared by variety. Only in Philadelphia, which ranked next to New York in volume of cartons distributed, did the fiberboard boxes hold their own. Here, Beauty plums in crates brought better prices per pound while Santa Rosa plums in the new containers sold at higher prices.

No final conclusions as to the eventual acceptance of the two containers can be drawn from these comparisons because of the unbalance between the relatively small volume of plums shipped in the cartons and the large volume marketed in crates.

The majority of the buyers still favored the conventional crates. But certain buyers showed noticeable interest in bidding on plums in the new containers even though they seldom were on the market more than two days a week.

Two major receivers in New York expressed the belief that the cartons would forge ahead steadily if they could be made available on the market every day. If they could be sure of satisfactory trade acceptance, it is likely that more shippers would shift to the new containers. They cost less, and they are less expensive to pack and to load (19 cents per carton compared to 30 cents per crate). The fiberboard containers also are easier to handle and have a lighter tare weight than the 4-basket crate.

5 MARKET AVERAGES

STAPLE (1 inch)	GRADE					SPOTTED	
	WHITE						
	GM	SM	M	SLM	LM	GM	SM
EASTERN 1/							
29/32	-203	72	113	412	651	541	563
15/16	-59	72	113	412	652	433	455
31/32	+1	-13	64	343	564	376	400
1	-83	73	2	265	515	312	336
1-1/3	-1	1	74	221	4	266	288
1-1/16	+260	243	148	-178	456	225	246
WESTERN 2/							
29/32	-4	62	22	58	63	402	
15/16	-69	62	125	450	737	472	492
31/32	-15	31	71	382	665	415	440
1	-84	65	7	209	477	367	387
1-1/3	-1	1	6	253	5	319	336
1-1/16	+262	242	156	-201	549	269	286
1/	Chrl., Aug., Atl., Mtg., and Mem.						
2/	Mem., N.O., Dal., Hous., and Gal.						

40 years of COMMITTEE PRICE QUOTING FOR COTTON

You can search the country over, but only in the cotton industry will you find so many trade committees quoting daily prices. Here, they have been doing it for the past 40 years—sometimes on as many as 312 quality combinations a day.

Made up of both buyers and sellers of cotton, these committees serve as boards of expert appraisers. The quotations are their judgments of the values of various qualities of cotton even when there may be no actual sales in the market.

Usually, though, they are informed estimates of prevailing prices. They represent, for the most part, an average of the range of prices for each particular grade and staple.

These quotations are used by AMS in its market news service. They also provide the basis for quality differences for CCC loan and sales programs. All future contracts for cotton involving actual deliveries of cotton are settled on these quotations.

Price quoting committees operate under close co-operation with AMS. Fourteen such committees are located at designated markets. They are in Greenville and Charleston, S. C.; Augusta and Atlanta, Ga.; Montgomery, Ala.; Dallas, Houston, Galveston, and Lubbock, Tex.; Memphis, Tenn.; Little Rock, Ark.; Greenwood, Miss.; New Orleans, La.; and Fresno, Calif.

The reliability of the quotations of these committees has been frequently confirmed. In 1953-54, a comprehensive study of actual prices paid in 8 selected markets showed a high level of accuracy in the quotations of 7 of the 8 markets. The exception was a newly designated market where the work of the committee has since been improved.

Of course, there is always a possibility that the

quotation committees might show a bias in quoting prices. But the study concluded that, in most instances, the quoted price of the same grade and staple of cotton in the same market closely approximated the average of the price range.

When you consider that 168 quotations are made each day in each market—and in Atlanta, 216, and in Memphis and Greenwood, 312 quality combinations are quoted—this speaks well of the committee-quoting system.

In doing its work, each committee has the secretary of the exchange collect information on purchases and sales. On the basis of these data, the committees quote prices daily and transmit them to the Department's market news offices in Memphis. Here they are published in a daily report entitled "Spot Cotton Quotations."

Some committees meet every day, but most meet less frequently. All are subject to call by the chairman as needed to consider changing values.

The committee gives its quotations in cents per pound for Middling 1", the base quality. This usually fluctuates with cotton futures prices from day to day and is computed by the secretary on instructions from the committee.

Other grade and staple quotations are in terms of premiums or discounts on and off Middling 1". For example, Middling 13/16" might be quoted at 450 "off." On the other hand, Good Middling 1" might be 100 "on." Differences are in points or hundredths of a cent per pound.

Committees are guided in their work by (1) the regulations of the Secretary of Agriculture under the Cotton Futures Legislation, (2) suggestions from the Department, and (3) an understanding between the exchanges in the designated markets and the Department. The latter was reviewed and revised in April 1956. At this time, members of the cotton trade indicated that quotations generally were considered to be satisfactory. Only minor changes were made.



OFFICIAL BUSINESS

STATE EGG LAWS AND REGULATIONS

By Paul Mehl

Forty-seven States have "egg laws," yet no two of them are exactly alike.

Their aims are the same—to market eggs effectively to the greatest advantage of the producers, to facilitate interstate commerce in eggs and egg products, and to prevent misrepresentation in advertising and labeling eggs. But the rules they apply to achieve these aims are not the same.

These vary from State to State—much to the concern of State marketing officials, egg handlers, and distributors as well as State college and U. S. Department of Agriculture personnel.

These people are most interested in promoting greater uniformity in the laws of the various States. They are anxious to iron out the variations which make egg marketing between States difficult.

Differing interpretations of quality as well as varying grade, weight, and class requirements limit the efficiency of the marketing process. Varying advertising and labeling rules also are a nuisance.

Officials in the marketing field held three regional meetings last year in an effort to find ways of bringing about greater uniformity in State egg laws. Representatives of four Midwestern States met in Omaha. Nine States were represented at a meeting in Hot Springs, Ark., and three in Alexandria, Minn.

Uniform standards and grades, proper labeling of the consumer graded pack, the free movement of eggs across State borders, and adequate financing of law enforcement were discussed at the meetings.

Unless sufficient funds are made available, egg marketing laws cannot be effectively administered. And it is this problem that has in the past put a large stumbling block in the way of bringing about uniform egg laws.

Actually, State egg laws are nothing new. They came into existence in 1925 when USDA issued its first standard and grade requirements. Thereafter, these regulations set the pattern for the State laws.

Since 1925 U. S. standards and grades have been revised several times. New State egg legislation has been enacted or the existing law revised to incorporate the new features. The trend has been toward greater uniformity both between the U. S. standards and grades and those of the individual States.

Despite this trend, some very important differences still exist among the State laws.

Take, for example, the word "fresh." Thirty-nine States refer to "fresh eggs" in their egg laws—three of them even have separate laws pertaining to fresh eggs. Yet the quality specifications for so-called fresh eggs are not the same in all these States. Usually, though, fresh eggs are described as being eggs of a quality equal to, or better than, Grade A eggs. One State, however, allows labeling which implies freshness for Grade B eggs.

The use of the term fresh would have more meaning if each of the States had the same specifications for Grade A. Advertising and promotion programs which are financed and carried on by the egg industry on a State, regional, and national basis would be much more effective if the standards and grades used were the same in all areas.

And so it goes—all down the line. Some States have precise labeling requirements; others merely prohibit mislabeling and giving misleading information. Some have specific provisions defining the right of authorized persons to make inspections; others fail to define what may or may not be inspected.

The enforcement of these laws varies and so, too, the system of penalties.

Obviously, such variability confuses persons who produce, handle, sell or buy eggs. Through the use of similar regulations, producers are more likely to receive prices consistent with the quality of eggs marketed. The middlemen and retailers would find bargaining simplified. And consumers would know from the uniform grade-marks exactly what they were buying.